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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/529,100

03/24/2005

Yoshinori Arai

MOR-256-A

1988

48980

7590

06/26/2008

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SUITE 624

TROY, MI 48084

EXAMINER

LEWIS, RALPH A

ART UNIT

PAPER NUMBER

3732

NOTIFICATION DATE

DELIVERY MODE

06/26/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/529,100 | Applicant(s) ARAI ET AL. | |
| | Examiner Ralph A. Lewis | Art Unit 3732 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 22-38 is/are pending in the application.
- 4a) Of the above claim(s) 15-18 and 40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 19 and 22-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/22/08; 5/22/08</u> | 6) <input type="checkbox"/> Other: _____ |

Acknowledgement of Election

Applicant's election without traverse of group I, claims 1-14, 19 and 22-38 drawn to an occludator/articulator and system in response to the restriction/lack of unity requirement of March 18, 2008 is acknowledged. Claims 15-18 and 40 are withdrawn from further consideration at this time.

Objection to the Claims

Claims 1-14, 19 and 22-38 are objected to under 37 CFR 1.75(i) which requires each element or step of the claimed invention to be separated by a line indentation.

Rejections based on 35 U.S.C. 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14, 19 and 22-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 2 and 3, it appears that applicant intends for the occludator to mount models rather than "molds" as claimed. In claim 1, lines 4 and 5, it is unclear how the claimed movement relates to the previously claimed upper bow shaped part and lower bow shaped part. In line 6, there is no clear antecedent basis for "the joint", as two different joints have previously been set forth. In line 11, the "identical in contour

. . . of a person whose impression has been obtained” limitation raises indefiniteness issues. The limitation does not appear to accurately reflect applicant’s disclosed invention as the disclosed invention does not appear capable of producing exact identical replicas of a person's bone structure. (note for example applicant’s claim 38 which acknowledges errors preventing an identical copy). Second, the limitation is tied to an individual that is not part of the invention, whether or not a particular articulator met the limitations of the claims depends not only on the structural requirements set forth in the claim but the particular individual that the device is intended to be used with. It is unclear how the same exact device can meet the limitations of the apparatus claim if intended to be used with one individual, but not meet the limitations if intended to be used with another.

In claim 3, line 2, there is no clear antecedent basis for “the joint.” In line 5, there is no antecedent basis for “the pedestal.”

In claim 10, there is no antecedent basis in lines 3 and 4 for “the upper mounting part.”

In claim 11, there is no antecedent basis in lines 3 and 4 for “the lower mounting part.”

In claim 13, there is no antecedent basis for the “condyle model” or the “fossa model.” In line 3, it is unclear how the “a pair” relates to the “two or more pairs” set forth in line 2. Moreover, it is unclear how the prefabricated pairs meet the “identical” requirements of parent claim 1.

In claim 14, there is no antecedent basis for “the face bow.”

In claim 19, line 8, it appears that applicant intends for the occludator to mount models rather than “molds” as claimed. In line 11, there is no clear antecedent basis for “the joint.” In lines 16 and 17, it is unclear as to what applicant is referring to with the “integrally formed in a separable manner” limitation. Clarification is required. Additionally, claim 19 appears to be lacking critical structure necessary for performing the stated intended use. More particularly, it is unclear how the claimed stereolithography machine is capable of forming a solid model of the temporomandibular joint simply from the raw data generated from the CT device, typically a some sort of computer processor is needed to separate the condyle and fossa data from surrounding tissue data, design the model from the separated data and provide control instructions to the stereolithography machine to generate the model. Note for example Figure 17 of Chishti et al (US 6,210,162). It is indefinite to leave out critical basic structure necessary for accomplishing the claimed invention.

In claim 23, line 2, there is no clear antecedent basis for “the joint”.

In claim 24, lines 7 and 8, there is no antecedent basis for “the pedestal.”

In claim 25, line 8, there is no antecedent basis for “the pedestal.”

In claim 28, there is no antecedent basis in line 4 for “the upper mounting part.”

In claim 29, there is no antecedent basis in line 4 for “the lower mounting part.”

In claim 38, line 8, it appears that applicant intends for the occludator to mount models rather than “molds” as claimed. In claim 38, line 11, there is no antecedent basis for “the joint.” In line 16, it is unclear how the “data base” relates to the other

elements of the system. As with claim 19 above, the present claim lacks critical necessary structure necessary for accomplishing the claimed invention.

Rejections based on Prior Art

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silva et al (US 5,494,440) in view of Nagata (US 2002/0012896).

Silva discloses a dental articulator having a lower bow shaped part 24, upper bow shaped part 24 and right and left temporomandibular joints 51, 52. The joints are comprised of anatomically correct shaped condyles and fossas (see Figures 5 and 6). The Silva condyles and fossas lack the claimed detachable mount to the bow shaped parts. Nagata et al for a similar dental articulator teaches that it is desirable to mount the condyle and fossa members on pedestals (see Figure 3) so that the positions of the joint members may be adjusted. To have mounted the Silva condyle and fossa members on pedestals so that their positions may be adjusted as taught by Nagata would have been obvious to one of ordinary skill in the art.

Prior Art

Applicant's information disclosure statements of April 22, 2008 and May 22, 2008 have been considered and an initialed copy enclosed herewith.

Allowable Subject Matter

Claims 4-9 and 19 – 38 would be allowable if rewritten to overcome the indefiniteness rejections above and if rewritten in independent form to include all of the limitations of the claims from which they depend, if any.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712**. Fax (571) 273-8300. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Cris Rodriguez, can be reached at (571) 272-4964.

R.Lewis
June 20, 2008

/Ralph A. Lewis/

Primary Examiner, Art Unit 3732